

MR2919-9/C

Serial Number: 10/716,544

Reply to Office Action dated 12 December 2007

REMARKS/ARGUMENTS

This case has been carefully reviewed and analyzed in view of the Office Action dated 12 December 2007. Responsive to that Office Action, Claims 43-44, 46, and 49-50 are further amended for prosecution with the other pending Claims. It is believed that with such amendment of Claims, there is a further clarification of their recitations.

In the Office Action, the Examiner rejected Claims 43-54 under 35 U.S.C. § 103(a) as being unpatentable over the Schiff reference in view of the Javitt, et al. reference, further in view of the I, et al. reference. In setting forth this rejection, the Examiner again acknowledged that Schiff fails to explicitly teach a first transceiver having means for transmitting data at a first power level at a first data rate to a second transceiver equipped with means for transmitting second data at a second power level and a second data rate, different from the first date rate, back to the first transceiver; or second means for determining the second data rate for second data transmission based upon the received power level. The Examiner, however, relied upon Javitt, et al. for disclosing as much and concluded that it would have been obvious to one having ordinary skill in the art to have incorporated the feature into Schiff's system.

The Examiner additionally acknowledged that even the combination of Schiff and Javitt, et al. fails to teach the second data rate being adaptively adjustable responsive to a distance between first and second transceivers. The

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Examiner, however, cited I, et al. for disclosing a CDMA system whose mobile and base stations communicate as illustrated in its Fig. 4 such that data rates vary as a function of distance between the mobile and base stations. The Examiner cited Fig. 9 and the passage at column 10, lines 46-55 of the reference in support, then concluded that it would have been obvious to one of ordinary skill in the art to have accordingly modified the Schiff system.

As each of the newly-amended independent Claims 43-44 and 46 now clarify, Applicants' claimed apparatus and method include among their combinations of features sensing the "received power level" of the received "communication data" itself, and determining a second data rate "based upon the received power level" of that received communication data. As these Claims further clarify, the second data rate is thus "adaptively adjusted in dynamic manner responsive to a distance directly between ... first and second transceivers." In this way, the data rate is continually adjusted to maintain optimal exchange of communication data. For example, the data rate for communication data would be lowered by an amount sufficient to adapt to the attenuation of communication data power levels resulting from excessive separation distances, which might otherwise negate reliable communication.

The full combinations of these and other features as now more clearly recited by Applicants' pending Claims is nowhere disclosed by the cited references, even when the newly-cited I, et al. reference is considered with the

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previously-cited Schiff and Javitt, et al. references. As the Examiner acknowledged, the Schiff and Javitt, et al. references fail to disclose the adaptive adjustment of data rate in the manner claimed. The teachings of I, et al. depart from Applicants' claimed approach in a number of notable respects, and therefore fail to remedy the deficiencies of those references.

I, et al. provides for mobile stations having a particular need to request and be granted permission to use a burst of "higher-than-basic data rate," but only if doing so will not cause excessive interference conditions in base stations of neighboring cells. It is not the sufficiency of data rate for the actual communication data being exchanged that I, et al. is concerned with. It is instead the potential "interference levels that the mobile" station requesting a high data rate burst "would generate at neighboring base stations," (column 7, lines 58-59) that the reference is primarily concerned with. Accordingly, the system gathers pilot strength measurements from the neighboring base stations to determine - when a higher-than-basic data rate is specially requested - whether or not all such neighboring pilot strengths are high enough to support a burst of the high data rate for the requesting mobile station. If so, the request is granted. If not, the request is denied. There is no adaptive adjustment of data rate "in dynamic manner" as recited by Claims 43-44 and 46, much less any adaptive adjustment "responsive to a distance directly between" communicating transceivers, as those claims further recite.

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To whatever extent I, et al. may still be credited with teaching adaptive data rate adjustment, the reference unambiguously teaches against relying upon any indicia of geographic distance as basis for the adjustment. The reference concludes in no uncertain terms that "control based on geographic distance is neither optimal nor practical," (col. 6, line 67 – col. 7, line1). For the reason that "distance of the mobile from the cell site cannot be determined accurately," and that other factors such as "shadow fading conditions" may bear more importantly on actual interference (col. 7, lines 62-63 and 66), I, et al. prescribes an alternative basis for control - namely, pilot strength measurements. This departs from the dynamic adaptive adjustment of communication data rate "responsive to a distance directly between" communicating transceivers recited by the newly-amended Claims.

Even where an increased data rate is assigned in I, et al., such data rate is not "determined based upon the received power level of ... communication data" itself, as Claims 43-44 and 46 now clarify. As noted, I, et al. looks to the strength of pilot tones measured by the given base stations in determining whether to grant a high data rate request or not. A pilot tone is a designated reference signal, typically of a single dedicated frequency, which is transmitted for supervisory or other reference purposes, such as aiding cell handoff. As such, a pilot tone does not constitute the "communication data" to which the received "power level" and received first "data rate" recited in Applicants' Claims pertain.

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Turning to I, et al.'s mention of the distance between the requesting mobile station and its surrounding base stations, the reference does not prescribe a direct correlation between such distance and the actual data rate value to be applied. Fig. 9 of the reference which the Examiner specifically relied upon merely sets out the basic constant data rate 901 used by the system, and the ranges of normalized distance between the mobile station and a base station over which other maximum data rate limits 902, 903, 904 for heightened data rate bursts may be afforded for requesting mobile stations. These data rate limits (or thresholds) 902, 903, 904 remain quite constant until they reach a critical distance, at which point they abruptly drop off. The very passage in I, et al.'s specification (column 10, lines 46-55) which the Examiner cited for support speaks only to the drop off behavior of these limits of allowable data rate, not to any distance-based dynamic adjustment of actual data rates between particular transceivers. Even if the curves 901-904 represented something other than mere limits, their generally flat profiles over much of the normalized distance range (along the x-axis) preclude any notion of their being "adaptively adjusted in dynamic manner responsive to ... distance," as each of the newly-amended independent Claims 43-44 and 46 recites.

Finally, to the extent distance factors may be attributed to the tone strength measurements of a mobile's neighboring base stations in I, et al., they could not all be for the "distance directly between" communicating transceivers, as the newly-amended Claims recite. All but one of the strength measurements are for inactive

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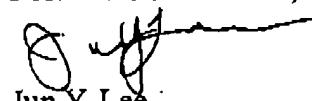
base stations - those base stations not communicating with the mobile at a particular point in time. What is more, the exchange of information to effect a change in data rate for a mobile station is carried out necessarily through an intermediary, access controller 190. This forecloses direct interaction of first and second transceivers toward that end, in the manner recited by the pending Claims.

It is respectfully submitted, therefore, that the Schiff, Javitt, et al., and I, et al. references, even when considered together, fail to disclose the unique combinations of elements recited by the pending Claims for the purposes and objectives disclosed in the subject Patent Application.

It is now believed that the subject Patent Application has been placed fully in condition for allowance, and such action is respectfully requested.

If there are any further charges associated with this filing, the Director of Patents and Trademarks is hereby authorized to charge Deposit Account #18-2011 for such additional charges.

Respectfully submitted,
For: ROSENBERG, KLEIN & LEE


Jun Y. Lee
Registration #40,262

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Suite 101
3458 Ellicott Center Drive
Ellicott City, MD 21043
(410) 465-6678
Customer No. 04586

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Jun Y. Lee